- Department of Sport Sciences, Aarhus University (AU)

- Norwegian School of Sport Sciences (NIH)

- Department of Food and Nutrition, and Sport Science, University of Gothenburg (GU)

- Faculty of Sport and Health Sciences, University of Jyväskylä (JYU)

- A network of education exchange, research and knowledge dissemination in elite sport – www.sne.au.dk

- Cooperation agreement in the period 1st of January 2016 – 31th of December 2018

Aims

- … to offer more and better programs for the students at the four institutions (master programs and Ph.D.-schools).

- … to strengthen the amount and the quality of research in elite sport by coordination and share of knowledge within the four institutions.

- …. to communicate methods, results and new knowledge about elite sport to different groups (elitesport managers, elite coaches, talent coaches etc.) – "best practice" in applied research of elite sport in the Nordic countries.

Topics of research

- Youth sport and Talent development

- Dual career

- Strength training

- Training and Nutrition

- Match Analysis (team sport)

- Development of physical testing in olympic sailing

AARHUS UNIVERSITY

NIH NORWEGIAN SCHOOL OF SPORT SCIENCES

UNIVERSITY OF GOTHENBURG

UNIVERSITY OF JYVÄSKYLÄ

Seminar

Match Analysis – Research and Practice

Wednesday 29th of November 2017

Norwegian School of Sport Sciences - Sognveien 220 – Oslo, Norway
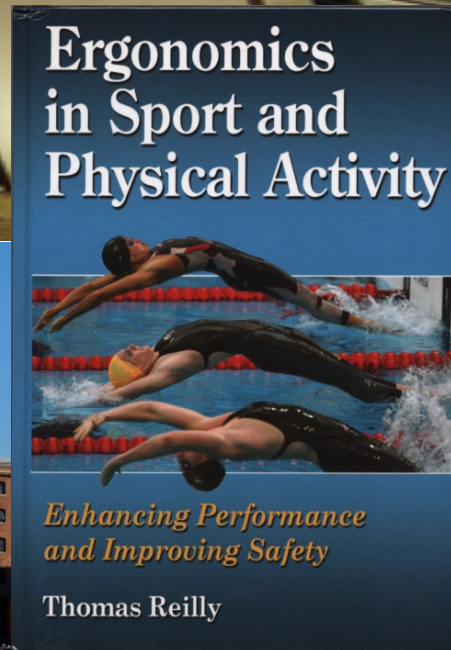
Scandinavian Network for Elite Sport – www.sne.au.dk

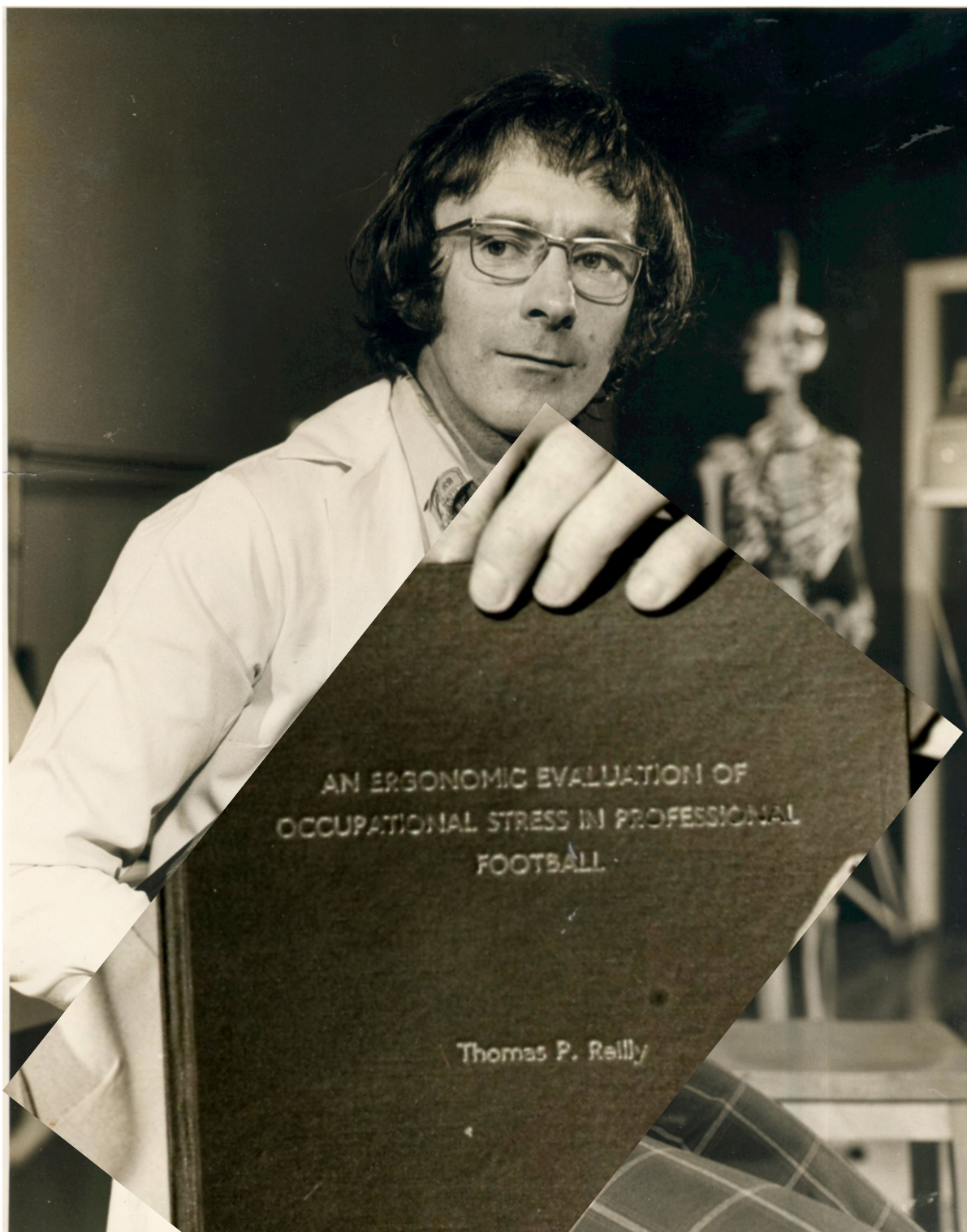|	
9:30 – 9:45	Welcome and introduction: v. Michael Andersen & Matt Spencer
9:45 – 10:15	**Match analysis: Handball research – National and international research and perspectives** v Lars Bojsen Michalsik, PhD - University of Southern Denmark, the Danish & European Handball Federation
10:15 – 10:45	v. Matt Spencer, Ass. Professor - Norwegian School of Sport Science, Norway
10:45 – 11:15	Plenum discussion: Research and practice
11:15 – 11:45	**Match analysis: Football research – Overview** v. Magni Mohr, Ass. Professor - University of Gothenburg, Sweden
11:45 – 12:45	Lunch
12:45 – 13:30	**Match analysis: Football - From research to practice** v. Paul Bradley, Professor – Sport and Exercise Sciences, Liverpool John Moores University, UK
13:30 – 14:00	**Match analysis: Football – Practical perspectives** v. Pål Arne Johansen – National U19 Head Coach, Norway
14:00 – 14:30	**Match analyses: Football – Practical perspectives** v. Mads Bendiksen, coach - F.C. Midtjylland, Denmark
14:30 – 15:00	Plenum discussion: Research and practice
15:00 – 15: 20	Break – Coffee/tea
15:20– 16:00	**Match analysis: Ice hockey – Research and practical perspectives** v. Erik Lignell, PhD student - Frölunda Hockey Club, Sweden v. Magni Mohr, Ass. Professor - University of Gothenburg, Sweden
16:00 – 16:30	Plenum discussion: Research and practice

Prof. Tom Reilly
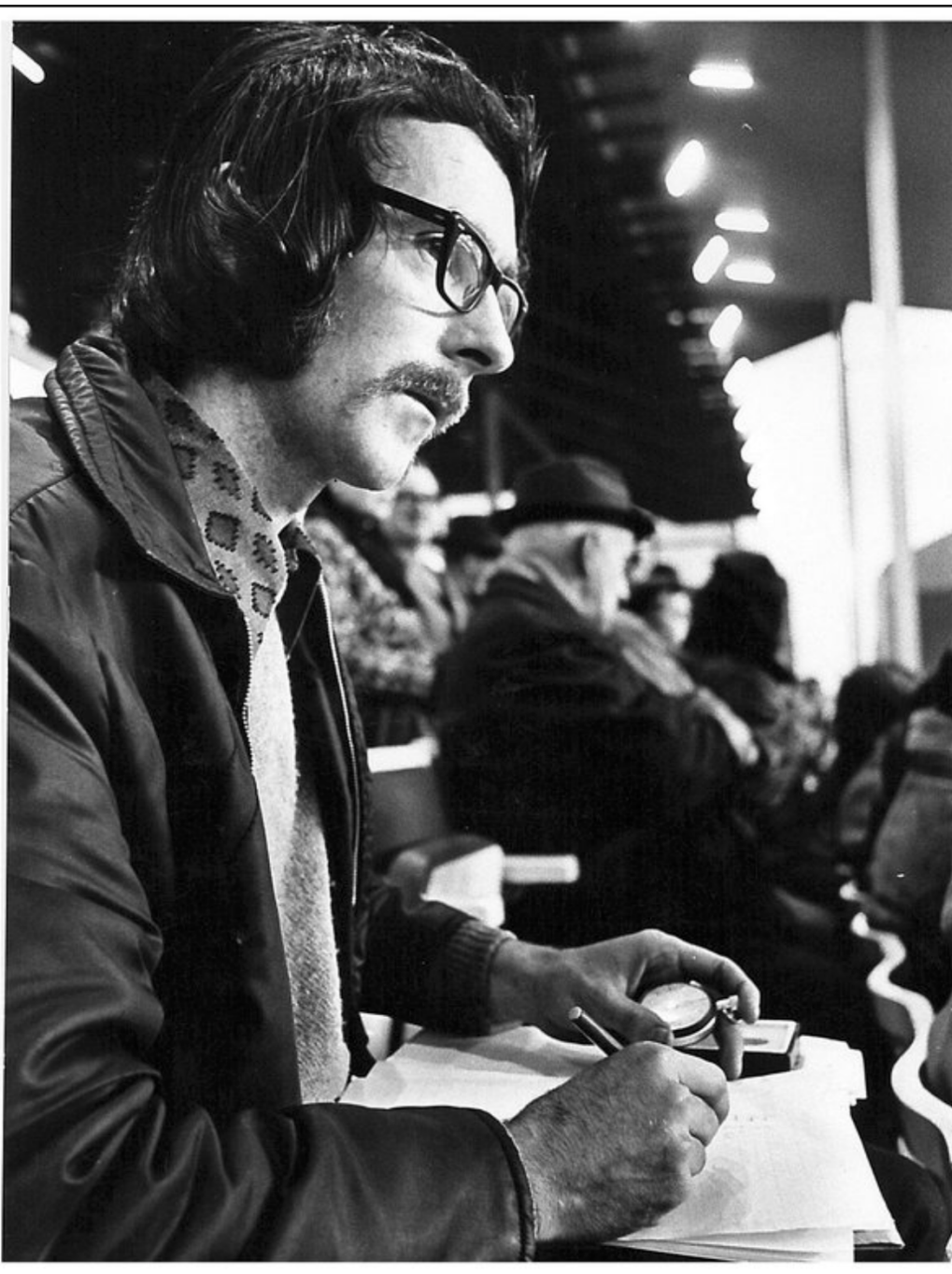
900+ peer-reviewed publications
15 books

Ergonomics in Sport and Physical Activity

Enhancing Performance and Improving Safety

Thomas Reilly

(1941 – 2009)

72 PhD completions

AN ERGONOMIC EVALUATION OF
OCCUPATIONAL STRESS IN PROFESSIONAL
FOOTBALL

Thomas P. Reilly

Reilly & Thomas, 1976

- Observed 1 player per game
- 51 games over 1 season
- ≈ 1% measurement error
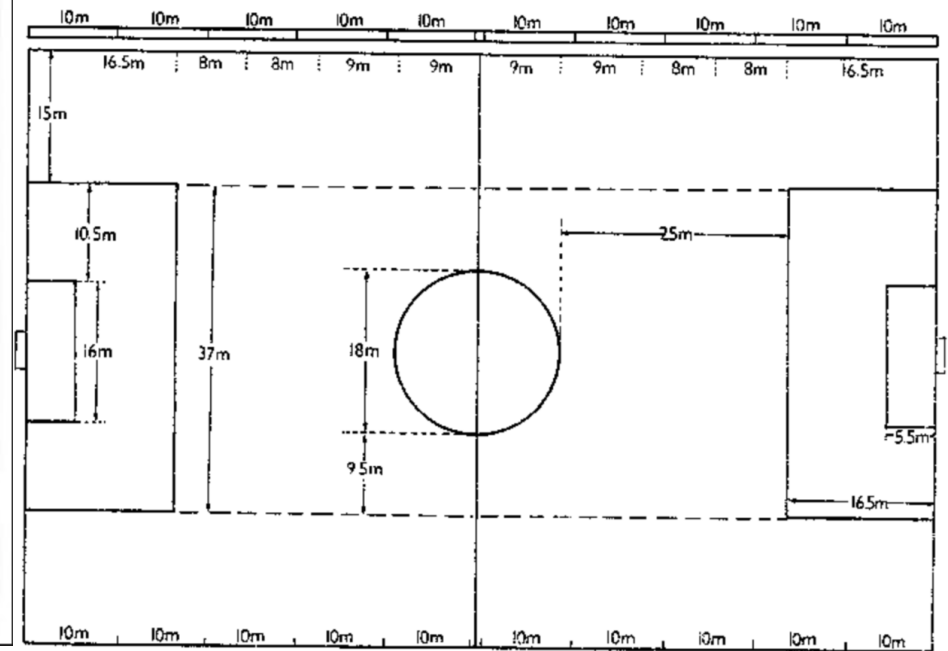
Figure 1
Map of experimental home ground.

Table 2
Distances covered in various positional roles according to types of activities and frequency of movement activities per game.

	Activity	Distance (m)		Frequency of movements	
		Mean	S.D.	Mean	S.D.
MID-FIELD (n = 11)	Jog	4042	540	288	30
	Cruise	2159	314	118	20
	Sprint	1063	162	68	15
	Walk	2034	368	315	51
	Back	507	295	106	38
	Aggregate	9805	787	895	—
FULL-BACK (n = 8)	Jog	2907	431	226	50
	Cruise	1588	281	109	15
	Sprint	787	284	52	11
	Walk	2293	388	331	28
	Back	670	208	138	38
	Aggregate	8245	816	856	—
STRIKER (n = 14)	Jog	2769	616	210	32
	Cruise	1752	437	114	14
	Sprint	1068	252	65	17
	Walk	2310	558	304	58
	Back	498	167	117	31
	Aggregate	8397	710	810	—
CENTRE-BACK (n = 7)	Jog	2908	346	225	37
	Cruise	1596	254	110	14
	Sprint	829	113	59	10
	Walk	1774	316	276	25
	Back	652	305	131	41
	Aggregate	7759	521	801	—

Figure 2
Work-rate (mean ± standard deviation) per game according to positional roles.
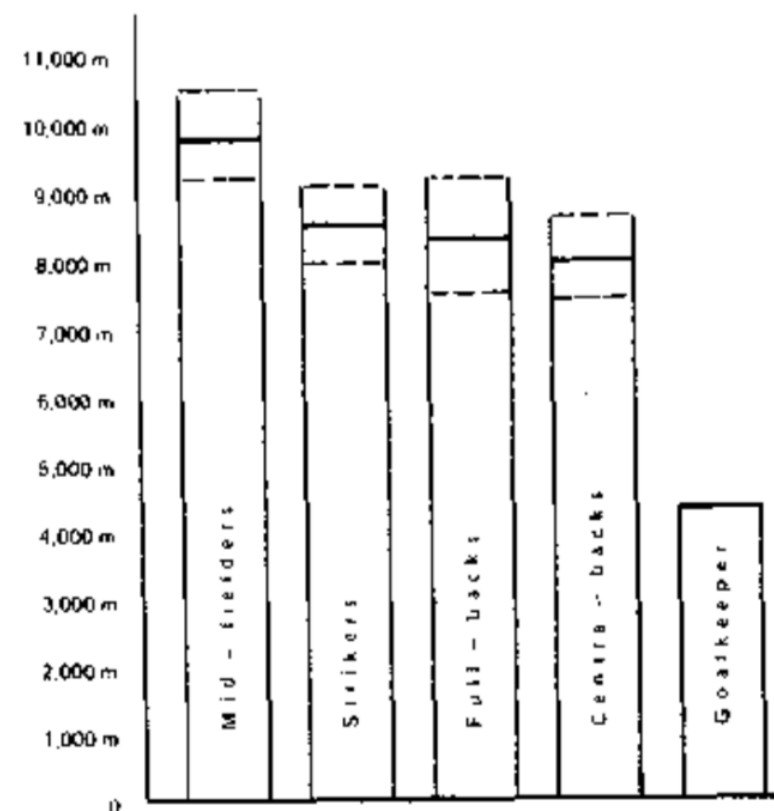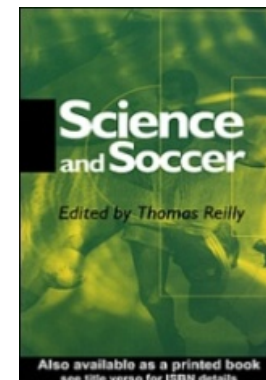
THE ACTIVITY OF A LIFE-LONG FOOTBALL FAN

Pioneered the football-specific research base

Developed academic programmes in the area

Innovator in industry/academic links

Photos: Barry Drust

Research Institute for Sport and Exercise Sciences
Liverpool John Moores University

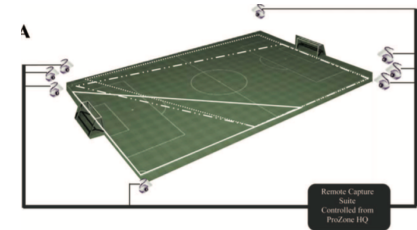# 'Match Analysis': Methods Used

- Manual notational:

- Basic video:

- Video – computer integration:

- Manual computer tracking:

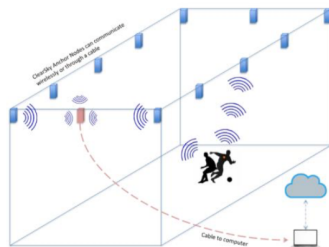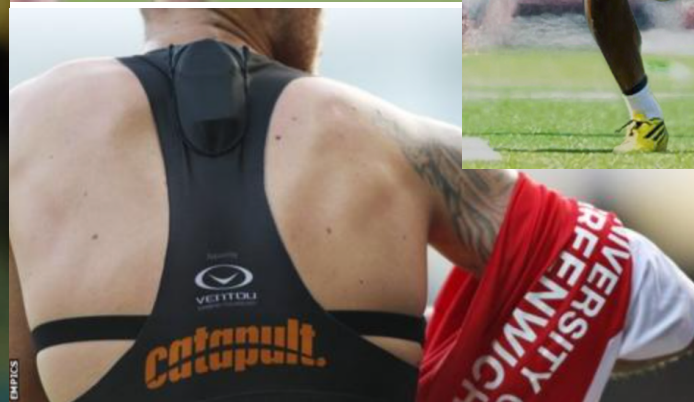- Semi-automatic video tracking systems:

- GPS / inertial sensors:

- LPS:

Accelerometer (force)   Gyroscope (angle)   Magnetometer (direction)
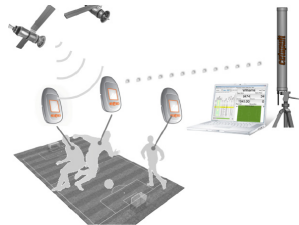
GAME DAY DATA - COACHES BOX

Photos: Brendan Fahrner

GAME DAY DATA - COACHES BOX

Player Gametimes & Rotations

Team & Oppo Trends

Individual Player

Countdown Clock

Defensive KPIs

Offensive KPIs

Head Coach KPIs

Line Coach (FWD/DEF/MIDS)

Match-Ups

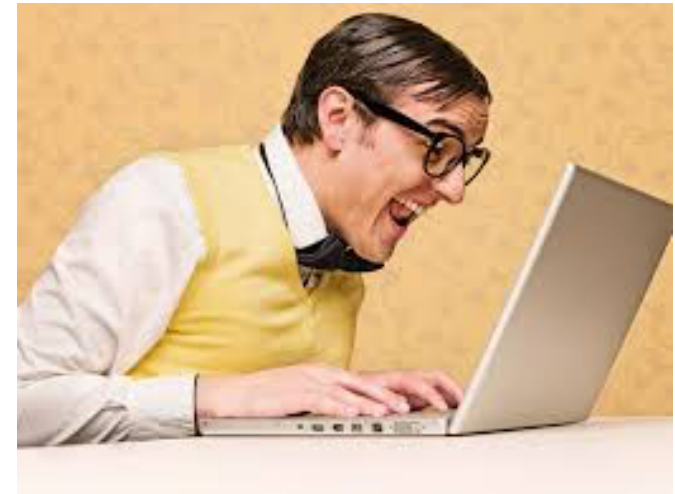Video Coding & Setups

Photos: Brendan Fahrner

Match & Training Analysis of Team Sports

VS.

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